



"RESPONSE UNDER 37 CFR 1.116-  
EXPEDITED PROCEDURE EXAMINING  
GROUP 1754"

DOCKET NO: 218197US0

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF ;  
YASUO TOKITOH ; EXAMINER: JOHNSON, EDWARD M.  
SERIAL NO: 10/078,225 ;  
FILED: FEBRUARY 18, 2002 ; GROUP ART UNIT: 1754  
FOR: COMPOSITE PRODUCT AND :  
MANUFACTURING METHOD THEREOF

SECOND DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

I, Yasuo TOKITOH, a citizen of Japan, hereby declare and state that:

1. I am the inventor of the above-identified application,
2. I have a master degree in Engineering, which was conferred upon me in 1976 by Faculty of Chemical Engineering, Tokyo Institute of Technology, located in Tokyo, Japan.
3. I have been employed by KURARAY, Co., Ltd. since 1976 and I have a total of 27 years of work and research experience in the field of catalytic reactions and chemical processes.
4. The following experiments were carried out by me or under my direct supervision and control.

5. A conventional composite was prepared by treating 10 g of MPM-BL powder (infusibilized pitch powder, average particle size 10-30  $\mu$  m, manufactured by JFE Chemicals) with a 20% aqueous solution of KOH containing 15 g of KOH, and subsequently drying the treated powder. The ratio of elements in three portions (surface, intermediate and center) of the resulting composite are shown in the following Table 1. The amounts of potassium were observed by atomic absorption spectrophotometer, and the amounts of carbon, oxygen were observed by elemental analysis.

**Table 1**

	ratio(%)		
	C	K	O
surface	21.3	42.0	36.7
intermediate	40.8	31.9	27.4
center	49.9	29.0	21.2

6. A composite of the present invention was prepared by heating at 180°C for 140 minutes a mixture of 10 g of MPM-BL powder with 15 g of KOH in powder form. The ratio of elements in three portions (surface, intermediate and center) of the resulting composite are shown in the following Table 2.

**Table 2**

	ratio(%)		
	C	K	O
surface	26.6	34.6	38.8
intermediate	40.5	31.9	27.6
center	33.0	43.7	23.3

7. Table 1 shows that in conventional composites produced using an aqueous solution of metal hydroxide the metal of the metal hydroxide tends to migrate to the surface of the composite.

8. In contrast, Table 2 shows that in composites of the present invention produced using metal hydroxide in powder form the metal of the metal hydroxide does not migrate to the surface of the composite, but instead exists relatively uniformly throughout the composite.

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

10. Further declaration saith not.

Date: Aug 18, 2004 Yasuo Tokitoh

Yasuo TOKITOH